

CLAIMS

- (B1)
- 5 1. A method for using a service-on-demand in a mobile communication system, a mobile station of the system monitoring a cell transmission and receiving parts of the transmission intended for the mobile station, the method being **characterized** by comprising the following steps of:
- 10 offering in the cell the service-on-demand to all mobile stations located in the cell over a first channel,
- transmitting from the mobile station a registration message (2-2, 3-3) for registering as a user of the service-on-demand over a signalling channel,
- receiving at the mobile station an acknowledgement (2-4, 3-5) of the registration, which indicates how the service-on-demand is received, and
- 15 starting to receive the service-on-demand over the first channel in a manner indicated by said acknowledgement message.
2. A method as claimed in claim 1, **characterized** by the system transmitting the service-on-demand encrypted, and the mobile station receiving in the registration acknowledgement (2-4, 3-5) a key whereby the encryption of the received service-on-demand can
- 20 be decrypted.
3. A method as claimed in claim 1 ~~or 2~~, **characterized** by transmitting from the mobile station a termination message (2-6) for cancelling the registration as the user of the service-on-demand, and terminating the reception of the service-on-demand.
- 25 4. A method as claimed in claim 1 ~~or 2~~, **characterized** by agreeing, in connection with the registration as the user, on the time or the sum of money desired to be spent on the service, and terminating (3-7) to receive the service-on-demand in response to the expiration of the time or the sum of money.
- 30 5. A mobile communication system comprising mobile stations and base transceiver stations for conveying services of the mobile communication system to the users of the mobile stations, and in the system each mobile station monitoring the transmission of the base transceiver station of its location cell and receiving from the transmitting parts intended for the mobile station,
- 35 **characterized** by
- 0066315-092200
002250-STE9950
X
X

the mobile communication system further comprising at least one on-demand-service centre (ODSC) for offering at least one service-on-demand via the base transceiver stations of the service area of the service-on-demand over cell-specific first channels to all mobile stations located in the service area, for receiving the registration of the users of the service-on-demand and for acknowledging the registration,

at least one mobile station (MS) being arranged to register as a user of the service-on-demand by transmitting a registration message over a signalling channel, to receive an acknowledgement of the registration and to start receiving the service-on-demand over the first channel of the location cell in a manner indicated by the information included in the acknowledgement, and to convey the service-on-demand to the user.

6. A mobile communication system as claimed in claim 5, **characterized by**

the on-demand-service centre (ODSC) being arranged to encrypt the service-on-demand before it is transmitted over the first channels and to add a key whereby the encryption can be decrypted to each registration acknowledgement, and

the mobile station (MS) being arranged to receive said key in the registration acknowledgement and to decrypt the encryption of the service-on-demand received with the key.

7. A mobile communication system as claimed in claim 5 ~~or 6~~, **characterized by**

the base transceiver station (BTS) being arranged to transmit as cell broadcast over a broadcast channel a notification of the services-on-demand available at the cell, and

the mobile station (MS) being arranged to receive the notification of the services-on-demand of its location cell and to convey the information in the notification to the user of the mobile station.

8. A mobile communication system as claimed in claim 5 ~~or 6~~, **characterized by**

the mobile station (MS) being arranged to request for information about the services-on-demand of its location cell and to receive said information, and

the base transceiver station (BTS) being arranged to transmit to the mobile station, in response to the mobile station's request, information on the

services-on-demand available at the cell.

9. A mobile station (MS) comprising a user interface (UI) via which the user of the mobile station can receive services of the mobile communication system and give instructions and orders associated with the use of the services, and which mobile station monitors the transmission of its location cell and receives from the transmitting parts intended for the mobile station,

the mobile station (MS) being **characterized** by comprising registration means (CP) for composing and transmitting a registration message to the mobile communication network over a signalling channel, the registration message indicating that the user of the mobile station desires to register as a user of the service-on-demand available at the location cell, and for receiving an acknowledgement of the registration, and

service means (CP) responsive to the acknowledgement for receiving the service-on-demand in a manner indicated by the acknowledgement, and for conveying the service to the user interface.

10. A mobile station (MS) as claimed in claim 9, **characterized** by the service means being arranged to receive in connection with said acknowledgement a key and to decrypt with the key the encryption of the service-on-demand.

11. A mobile station (MS) as claimed in claim 9 or 10, **characterized** by the registration means (CP) being arranged to compose and transmit a termination message to the mobile communication network, the termination message indicating that the user of the mobile station desires to cancel the registration as the service-on-demand user, and

the service means (CP) being arranged to stop receiving the service-on-demand and conveying the service to the user interface in response to cancelling the registration.

12. A mobile station (MS) as claimed in claim 9 or 10, **characterized** by the service means being arranged to receive the termination message from the mobile communication network and, in response to the termination message, stop receiving the service-on-demand and conveying the service to the user interface.

13. An on-demand-service centre (ODSC) in a mobile communication system, **characterized** by comprising

service means (SP) for offering at least one service-on-demand to a service area which comprises at least one mobile communication system cell,

registration means (RP) for receiving and acknowledging the registration of a user of the service-on-demand, and

billing means (BP) responsive to the registration means for charging the user for the use of the service-on-demand.

5 14. An on-demand-service centre (ODSC) as claimed in claim 13, **characterized** by

the service means being arranged to encrypt the service-on-demand, and

10 the registration means (RP) being arranged to include a key in the registration acknowledgement.

15 15. An on-demand-service centre (ODSC) as claimed in claim 13 or 14, **characterized** by

the registration means (RP) being arranged to compute the number of the service-on-demand users, and

the service means (SP) being arranged to transmit the service-on-demand if there is at least one user of the service-on-demand.

20 16. A base transceiver station (BTS) comprising channels for at least one cell, one of the cells being a cell-specific broadcast channel for transmitting general information to the mobile stations in the cell,

characterized by the base transceiver station (BTS) being arranged to transmit at least one service-on-demand over one of its channels, the service-on-demand being available to all mobile stations located in the cell.

25 17. A base transceiver station as claimed in claim 16, **characterized** by the base transceiver station (BTS) being arranged to transmit in the general information of the cell a notification of the services-on-demand available at the cell.

002260" STE99960